



## Reflecting on and Presenting Your Mission



### Summary

What went great, and what could have been better? Reflect on your work and summarize it in your MDL. While all teams will submit their final MDL electronically, there are two options for completing this MO: MO-8a is for teams that attend an in-person hub event and **MO-8b is for teams that cannot attend.**

Materials Needed	Resources from <u><a href="#">Companion Course Lesson 8:</a></u>
<ul style="list-style-type: none"> <li>• Team’s rover from MO-5</li> <li>• The team’s rocket and crew exploration vehicle from MO-6</li> <li>• Electronic access to MDL</li> <li>• Tri-fold board and supplies for teams attending in-person hub events</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">Engage, Explore, and Elaborate Sections:</a> Guidance to help team members reflect on their work and summarize the MOs in the team’s MDL.</li> <li>• <a href="#">Evaluate:</a> Guidance to help students evaluate their own work and the work of their peers with a Mission Review Rubric.</li> </ul> <p><b>Additional Resources:</b></p> <ul style="list-style-type: none"> <li>• <a href="#">Description and options for producing a practice Challenge map</a></li> <li>• <a href="#">Printable color squares for Challenge map</a></li> <li>• <a href="#">Mission Development Log.(MDL) Template</a></li> </ul>

# Mission Guidance

IT'S GO TIME! Your team has modeled and tested its mission, and now it's time to launch. Teams not attending an in-person hub event will demonstrate their “final mission” by including two videos to highlight MO-5 (ROV-ing) and MO-6 (Rockets) at the same time they submit their final Mission Development Log (MDL) electronically.

## Video Demonstration of ROV-ing Under the Moon (MO-5)

Teams must record a video that shows that their rover can autonomously navigate a lava tube course that is the same as or similar to the Artemis ROADS III Challenge Map. Team Mission Advisors should configure this course for the teams in advance. Next students should align their robot at the start of the course and hit START! Teams can get as many tries as they need to navigate the lava tube, just make sure to edit the video to show us your best stuff. Videos must be 5 minutes in length or less.

## Video Demonstration of Designing a Human-Rated Rocket (MO-6)

Teams must record a video that shows that their rocket and crew exploration video can be successfully and reliably launched above 50 ft 3 times in a row without significant damage to the twist-tie dummy crew. The video should show the condition of the rocket and the crew before and after each launch, in addition to the launch. Please edit the video so it is 5 minutes or less.

## (Optional) Explore ways to showcase additional MOs in your region

Teams can explore other options for showcasing their work in this Challenge in their region. For example, if there are several Challenge teams in your area, teams can work together to create your own mini in-person hub event. Reach out to [info@nwessp.org](mailto:info@nwessp.org) for support!

Teams can also showcase your project at a local science or engineering fair. Explore the list below to find one near you:

- [Top 10 Science Fairs for High School](#)
- [ISEF Science Fairs](#)
- [Science Fair Directory](#)
- [National American Indian Science & Engineering Fair](#)

Teams can also present their work at a family STEM night, Parent/Teacher Conferences, or other school gatherings. They can even share their Challenge work with younger students at school.

# Deliverables

This is your final MO! It's time to wrap up your mission by summarizing your work on all Mission Objectives into a complete and final Mission Development Log (MDL) that will be submitted to NESSP. Remember, the MDL must address the "Deliverables" in each MO. Teams are not required to complete every MO, but only teams that satisfactorily addressed every Deliverable in every MO will be eligible to win the trip to a NASA center. Good work and good luck!

## *What must be in your Mission Development Log (MDL)?*

The MDL must:

- Have a title slide with team name, team number, team members's names, and the mission patch
- Include a completed Table of Contents slide
- Include the deliverables for each Mission Objective that the team completed
- Be 50 slides or less (including 9 green Mission Objective direction slides, see Template in MO-1)
- Include a completed copy of the "Mission Review Rubric" in the MDL template.
- Be submitted electronically by May 30th, 2025

Teams must also upload or provide a link to their MO-5 and MO-6 videos at the same time they submit their final MDL. The uploaded videos must:

- Be two files or a links to YouTube videos (one for each MO)
- Be less than 5 minutes long each
- Only show the faces of students who have complete the NASA Media Release Form (see MDL template)